AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A battery pack comprising:

a rechargeable battery having a first electrode and a second electrode; and

a protection device operable to protect the rechargeable battery when a rechargeable battery abnormality is detected,

wherein the protection device has output terminals including:

an externally exposed first output terminal connected to the first electrode of the rechargeable battery,

an externally exposed second output terminal connected to the second electrode of the rechargeable battery,

an externally exposed third output terminal for signal detection, and

a contact switching section allowing contact to be switched to protect the rechargeable battery when ~~a~~ the rechargeable battery abnormality is detected, ~~and~~

wherein the protection device ~~is~~ comprises the output terminals and the contact switching section formed as a single piece,

wherein the contact switching section has one end connected to the second output terminal~~electrode of the rechargeable battery~~, and the other end is connected to allow switching between a contact connected to the second electrode of the rechargeable battery ~~output terminal~~ and a contact connected to the third output terminal,

wherein when no abnormality is detected, the other end is connected to the contact connected to the second electrode of the rechargeable battery~~output terminal~~, and

wherein when an abnormality is detected, the other end switches to the contact connected to the third output terminal.

2. (Original) A battery pack as recited in claim 1 wherein the third output terminal is connected to a detection device to distinguish the type of the rechargeable battery.

3. (Original) A battery pack as recited in claim 1 wherein the third output terminal is connected to a detection device to discern rechargeable battery temperature rise.

4. (Original) A battery pack as recited in claim 2 wherein the detection device is connected between the third output terminal and the second output terminal.

5. (Original) A battery pack as recited in claim 1 wherein a protection element, connected between the second electrode of the rechargeable battery and the second output terminal, is provided as a safety element, housed in the protection device, to protect the rechargeable battery when a rechargeable battery abnormality is detected.

6. (Original) A battery pack as recited in claim 5 wherein the protection element is a PTC device.

7. (Original) A battery pack as recited in claim 4 wherein a protection element, connected between the second electrode of the rechargeable battery and the second output terminal, is provided as a safety element, housed in the protection device, to protect the rechargeable battery when a rechargeable battery abnormality is detected.

8. (Original) A battery pack as recited in claim 7 wherein the protection element is a PTC device.

9. (Original) A battery pack as recited in claim 7 wherein the safety element and detection device of the protection device are connected at the surface opposite the externally exposed surface of the output terminals.

10. (Original) A battery pack as recited in claim 9 wherein the detection device is electrically connected between the second output terminal and the third output terminal by direct attachment to the backside of the exposed output terminal surfaces.

11. (Original) A battery pack as recited in claim 1 wherein the rechargeable battery and the protection device are molded in synthetic resin to form a single piece.

12. (Original) A battery pack as recited in claim 1 wherein the contact switching section is provided by an arm which is activated by bimetal.

13. (Currently Amended) A battery pack as recited in claim 12,

wherein one end of the arm is a fixed end, and the other end of the arm is a switching end,

wherein when the arm is in ~~it's~~ a normal position, the switching end connects to a contact connected to the second electrode of the rechargeable battery ~~output terminal connecting~~ so as to connect the arm in parallel with the protection element,

wherein the switching end can switch to an abnormal position connected to a contact connected to the third output terminal so as to connect ~~connecting~~ the third output terminal with the second output terminal ~~electrode of the rechargeable battery,~~

wherein when an abnormality due to temperature rise is detected by the bimetal activated arm, the arm ~~it~~ switches from the normal position to the abnormal position, and

wherein when the arm ceases to detect an abnormality, the arm ~~it~~ returns to the normal position.

14. (Currently Amended) A method of detecting battery pack abnormalities, wherein the battery pack is provided with a rechargeable battery that can be charged and a protection device to protect the rechargeable battery when an abnormality is detected, comprising:

~~A step, when the protection device detects no rechargeable battery abnormality, for the electrical equipment connected with the battery pack to detect~~ detecting a detection device signal from ~~the~~ a third output terminal connected to ~~the~~ a detection device when the protection device detects no rechargeable battery abnormality, wherein the detecting device signal ~~which~~ distinguishes the type of the rechargeable battery;

~~A step, when the protection device detects a rechargeable battery abnormality, to bypass~~ bypassing the detection device and connecting ~~connect the~~ a second output terminal ~~electrode of the rechargeable battery~~ to the third output terminal when the protection device detects a rechargeable battery abnormality; and

~~A step for the electrical equipment to detect~~ detecting an abnormality via the third output terminal, and transitioning ~~transition~~ to a specified abnormal mode of operation, ~~which~~ wherein the abnormal mode of operation can operate at a lower voltage than the specified voltage of the rechargeable battery.

15. (Currently Amended) A method of detecting battery pack abnormalities as recited in claim 14 wherein the specified abnormal mode of operation is ~~display~~ displayed on ~~of~~ a specified display screen.